Heaton General Catalogue

Heaton Valves

Since 1943

Gate, Globe and Check Valves

Gate Valves - Designed to meet British Standard BS EN ISO 10434, API 600 and ANSI B16.34. Tested in accordance to API 598 and BS EN 12266-1. Face to face and end to end dimensions conform to BS EN 588, ANSI B16.10 & ISO 5752.

Gate valves are available in sizes 2" to 64", pressure classes 150, 300, 600, 900, 1500 and 2500. Other sizes are available on request.

Materials - WCB and stainless steel. Other materials are available upon request.

Gate Valve

Globe Valves - Designed to meet the British Standard BS 1873 and conform with ANSI 16.34. Tested in accordance to API 598 and BS EN 12266-1. Face to face and end to end dimensions conform to BS EN 588, ANSI B16.10 & ISO 5752.

Globe valves are available in sizes 2" to 24", pressure classes 150, 300, 600, 900, 1500 and 2500. Other sizes are available on request.

Materials - WCB and stainless steel. Other materials are available upon request.

Globe Valve

Swing Check Valves - Designed to meet British Standard BS 1868 and conform to the ANSI B16.34. Tested in accordance with API 598 and BS EN 12266-1. Face to face and end to end dimensions conform to BS EN 588, ANSI B16.10 & ISO 5752.

Swing check valves are available in sizes 2" to 36", pressure classes 150, 300, 600, 900, 1500 and 2500. Other sizes are available on request.

Materials - WCB and stainless steel. Other materials are available upon request.

Check Valve

Trunnion Mounted Ball Valve

HS series - The Heaton HS series of trunnion mounted, double block and bleed ball valves are designed to API 6D/API 6FA standard. They are also fire safe tested to API 607/ BS 6755.

NACE MR-01-75 is also available as an option. The HS DBB valve is available in full or reduced bore and with a top or side entry option.

Sizes are available from 2" up to 56" and pressure classes 150, 300, 600, 900, 1500 and 2500. Other sizes are available on request.

End connections include raised faced , buttweld and RTJ.

Materials available - A216, A105, LF2, F316 and F51. Other materials are available upon request.

HS series
Trunnion Mounted Ball Valve

Floating Ball Valves

H series - Cast body ball valves

Available in two piece body, full or reduced bore design. Option of deadman handle.

The two piece body is designed to ASME B16.34/BS 5351 and is fire safe tested to API 607/ API 6FA.

Sizes range from 1/2" to 10" in class 150 and 300. Other sizes are available on request.

Materials available - WCB, CF8M and LCC. Other materials are available upon request.

H series
WCB Floating Ball Valve

HA series - Cast body ball valves

Available in single piece reduced bore design. Option of deadman handle. The unibody ball valve is designed to ASME B16.34/API 608.

Sizes range from 1/2" to 10" in class 150 and 300. Other sizes are available on request.

Materials available - WCB, CF8M and LCC. Other materials are available upon request.

HA series
Stainless Steel
Unibody Ball Valve

Floating Ball Valves

HF series - Forged ball valves

The HF series forged ball valves has a 2 piece body design with a full and reduced bore option.

Sizes are available from 1/2" to 10", pressure class 150, 300, 600, 900, 1500 and 2500. Other sizes are available on request.

It is designed according to ASME B16.34/ BS 5351/ API 6D and fire safe tested to API 607/ API 6FA.

Materials available - A105, F316, LF2. Other materials are available upon request.

HF series
with deadman handle

H series - 3 piece (cast / forged) ball valves

H series 3 piece ball valve can be either cast or forged in a full bore design.

The valves are designed according to ASME B16.34/ BS 5351 and is tested to API 598 / BS 6755.

They are available from 1/2" to 2" in class 800 and 1500. Other sizes are available on request.

Materials available - Cast: WCB, CF8M, LCC
Forged: A105, F316, LF2
Other materials are available upon request.

H series
3 piece ball valve

HTE series - Top entry ball valves

The HTE series of top entry ball valves has a 2 piece top entry body with a reduced bore.

Sizes are available from 1/2" to 4" in class 150 and 300. Other sizes are available on request.

Materials available - WCB and stainless steel. Other materials are available upon request.

HTE series
top entry ball valve

Multi Port Ball Valves

Z series - multi port ball valves

The Z series multi-way flanged ball valve with ISO direct mount is available in T-Pattern and Y-Pattern 3 way, 4 and 5 way designs.

Sizes range from 1/2" to 5" in investment casting and 6" to 8" in sand castings. Other sizes available on request.

Available in both class 150 / 300 or PN 16 / 40.

Class 150 and 300

Valve design: ASME B16.34
Steel casting: MSS SP - 55
Face to face ASME B16.10
Flange connection: ASME B16.5
Pressure tested to API 598 (ISO 5208)
Sulfide stress cracking: NACE MR-01-75

PN 16 / 40

Valve design: EN 12516 - 1
Steel Casting: EN 12680-1/ MSS SP - 55
Face to face: DIN 3202 F4 / F1
Flange connection: DIN2633 (PN16) / DIN 2635 (PN40)
Pressure test: EN12266 -1 (ISO 5208)

Materials available: WCB, SS, Hastelloy C, Alloy 20, Super Duplex, Monel. Other materials are available upon request.

Z series multi port ball valve with rack and pinion actuator and switch box

Y-Strainer

Heaton HSTR series of Y strainers are available in class 150 and 300.

Sizes are available from 1/2" to 24". Other sizes are available on request.

Materials available include: WCB, SS, Ductile Iron. Other materials are available upon request.

HSTR series Y strainer

High Performance Butterfly Valves

HP series - Heaton HP series Triple Offset Butterfly is designed to API 609. Three body types are available which includes wafer, lugged and double flanged.

Sizes are available from 3" to 64", pressure class 150, 300 and 600. Other sizes are available on request.

Materials available - WCB, CF8, CF8M. Other materials are available upon request.

HP series High Performance Butterfly Valves

Resilient Seated Butterfly Valves

Heaton resilient seated butterfly valves comes in 4 series, HBW, HBL, HBWP and HBD. Material of rubber line - NBR, EPDM, PTFE, Viton, Silicon, other materials available upon request.

HBW series - Heaton range of wafer design butterfly valves. Face to face design to EN 558 series 20 / API 609 Table A.

HBL series - Heaton range of lugged design butterfly valves. Face to face designed to EN 558 series 20 / API 609 Table A.

The sizes for both the HBW and HBL series range from 1 1/2" to 40", available in both ANSI 150 and PN 10/16. Other sizes are available on request. Deadman handle available as an option.

HBW series Butterfly Valve

HBWP series - Heaton split body series comes in wafer or lugged design with a PTFE liner and the option of a PTFE coated disc. Face to face designed to EN 558 series 20 / API 609 Table A.

Sizes for range from 1 1/2" to 12", available in both ANSI 150 and PN 10 /16. Deadman handle available as an option.

HBWP series Butterfly Valve (PTFE Coated Disc and Liner)

Material options for Heaton Resilient Seated Butterfly Valves:

Body materials - Cast iron, ductile iron, WCB, SS.

Disc materials - Ductile iron + Ni/ Halar/ PTFE, CF8, CF8M, Al, Bronze.

Other materials are available upon request.

Resilient Seated Butterfly Valves

HBD series - Heaton range of U-Flange (double flanged) design butterfly valves. For sizes up to DN 600 / 24", the face to face is designed to EN 558 series 20 / API 609 Table A. 24" and above will be designed according to manufacturer's standard.

The sizes range from 16" to 96" and is available in both ANSI 150 and DIN 10/16. Other sizes are available on request.

Body materials - Cast iron, ductile iron, WCB, SS.

Disc materials - Ductile iron + Ni/Halar/PTFE, CF8, CF8M, Al, Bronze.

Other materials are available upon request.

HBDL series - Heaton's HBDL series of double flanged butterfly valves are designed to EN 558 series 13 / BS 5155 Short Pattern.

HBD series
Resilient Seated Double Flanged Butterfly Valve

Metal Seated Dual Plate Check Valve

DP series - Heaton DP series is a range of metal seated dual plate check valves that comes in 3 design, wafer, lugged and flanged. The end connections can also either be raised face or ring type joints. Heaton metal seated dual plate check valve all comes in a retainerless design for the best sealing.

The sizes range from 2" to 60" and is available in class 150, 300, 600, 900, 1500 and 2500. Other sizes are available on request.

Body materials - WCB, LCC, WC6, CF8M. Other materials are also available upon request.

Plate material - WCB, CA 15, LCC, WC6, CF8M. Other materials are available upon request.

DP series
WCB Metal Seated Dual Plate Check Valve

Heaton SS Metal Seated Dual Plate Check Valve

Resilient Seated Dual Plate Check Valve

HCLW series - Heaton HCLW range of resilient seated dual plate check valve is of a wafer design.

The sizes range from 2" to 24", available in ANSI 150 and DIN 10/16. Other sizes are available on request.

Body materials - Ductile iron. Other materials are available upon request.

Plate materials - B148 C95800, SS 304, SS 316, SS 316L, Duplex SS 4A. Other materials are available upon request.

HCLW series Resilient Seated Dual Plate Check Valve

Resilient Seated Gate Valve

NRS series - Heaton NRS series of resilient seated gate valves is designed according to DIN 3202 F4 & F5, BS 5150 & BS 5163, AWWA C509 for the various applications.

The sizes range from 1 1/2" to 48", available in both ANSI and DIN. Other sizes are available on request.

Body materials - Ductile Iron. Other materials are available upon request.

Disc - Ductile Iron + NBR / EPDM. Other materials are available upon request.

NRS series Resilient Seated Gate Valve

Through Conduit Gate Valve

HTC series - Heaton HTC series is a through conduit, DBB Gate Valve that is designed to API 6D. Soft seated to achieve TSO and is piggable as well.

The sizes range from 2" to 48" and is available in class 150, 300, 600, 900, 1500 and 2500. Other sizes are available on request.

Body materials - WCB. Other materials are available upon request.

HTC series Through Conduit Gate Valve

Heaton valves also offers a full range in house actuation services/ package to suit our customers'needs.

Rack and Pinion Actuator

HRP series - Heaton quarter-turn HRP Rack and Pinion actuators are high quality actuators designed for use in low and high cycle service, and guaranteed for a minimum of 50,000 cycles. Excellent for use on ball valves, plug valves, dampers and any other automation systems.

Operating Torques

- 6 Nm to 5220 Nm with operating pressure of 2 bar to 8 bar for double acting actuators.
- 6 Nm to 2200 Nm with operating pressure of 3 to 7 bar for spring return actuators, with end spring torques of up to 1580 Nm.
- Total of 14 sizes are available for the above operating torques.

Operating Temperatures

- 20 °C to + 80 °C for standard construction
- 40 °C to + 150 °C for optional construction

Operating Strokes

Between -5° to 95° for standard construction
Between -5° to 125° for optional construction
Between -5° to 185° for optional construction

HRP series actuator mounted on a HBW series butterfly valve

HRP series actuator mounted on a HBD series butterfly valves

Heaton in house actuation services

Scotch Yoke Actuator

HS series - Heaton HS series of scotch yoke actuator are high quality, extremely robust pneumatic actuators that are suitable for both low and high cycle runs with a guaranteed minimum of 50,000 cycles.

The HS series is suitable for use on large pipeline ball valves, butterfly valves for control, dampers and other automation systems.

Operating Torques

- 599 Nm to 85575 Nm with operating pressures of 3 bar to 6 bar for double acting actuators. Higher torques are available at higher supply pressure.

- 519 nm to 41060 Nm with operating pressures of 4 bar to 6 bar for spring return actuators, with end spring torques of up to 22660 Nm. Higher spring torques are available.

- Total of 10 sizes are available for the above operating torques.

HSH series - Heaton HSH series Scotch Yoke actuators are engineered to meet the needs of large sized quarter turn valves as they are able to produce a higher torque and are highly suitable for use on large pipeline ball valves, butterfly valves for control, dampers and other automation systems.

Operating Torques

- 1662 - 226194 Nm (start torque) at operating air pressure of 6 bar. Higher torques are available at higher pressure.

- 1039 - 115175 Nm (air torque) at operating air pressure of 6 bar. Higher torques are available for higher pressure.

Operating Temperatures

- 20 °C to + 80 °C for standard construction
- 40 °C to + 177 °C for optional construction

Operating Strokes

Between - 5° to 95° for standard construction
Between - 5° to 185° for optional construction

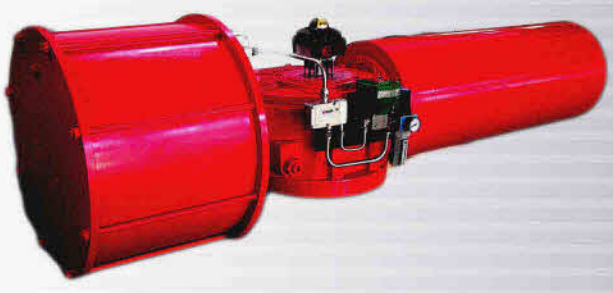
HS Series
Scotch Yoke Actuator

Operating Temperatures

- 20 °C to + 80 °C for standard construction
- 40 °C to + 80 °C for low temperature
- 20 °C to + 120 °C for high temperature

Operating Pressure

Pneumatic: 3 - 7 Bar
Hydraulic: 100 Bar



HSH Series
Scotch Yoke Actuator

Electric Compact Actuator

HEC series - The HEC electric compact actuator is able to provide a high start up torque with full load regardless of the position of the valve (open, closed or any other position).

The gear driving unit is made of alloy steel that is subjected to heat treatment, making it resistant to wear and long term fatigue.

The integral construction of the wormgear and drive shaft provides long term dependable operation with a high output torque.

Control functions available

Limit Switch, Potentiometer, Modulating Servo Module, R/I Converter, DC motor with intermediate Position Switch, 3 Phase 380 VAC Control Circuit for AC Motor.

Available in 3 different models

1) Actuator with Mounting Bracket and Coupling
2) Actuator with ISO 5211 Mounting Bracket
3) Bare Shaft Actuator

Electric Miniature Actuator

HEM series - The HEM electric miniature actuator is able to produce an output torque of between 9 Nm to 18 Nm and can be ran on either 110, 220 VAC or 24 VDC.

Weighting only 1.2 Kg and not larger than a normal soft drink can, it is designed specifically for actuation of small valves (including plastic valves).

The actuator housing is made of die-cast aluminum alloy making it resistant to wear.

Actuator with Mounting Bracket and Coupling

Actuator with ISO 5211 Mounting Bracket

Bare Shaft Actuator

Heaton Electric Miniature Actuator

Heaton Electric Heavy Duty Actuator

HEHD series - Heaton HEHD series of electric actuators is designed for larger quarter turn valves that exceed the torque limits of the HEC series.

HEHD is designed as a high efficiency, high torque and low noise output actuator.

Features

The actuator housing is made of hard anodized AL alloy and has an external coating of epoxy powder making it suitable for severe conditions. This is available in both explosion-proof and IP 67 or 68.

The motor is designed with a squirrel caged induction motor that generates a high starting torque and is also equipped with a thermal protector to prevent it from over heating.

The high performance microprocessor, auto-calibration provides a user friendly way of using the actuator.

Gear & self locking: 2nd staged double worm gearing prevents movement caused by backward force transferred from the valve and it maintains the exact position of the actuator and valve when the power is switched off.

Limit switches: directly engaged with the driving shaft to accurately set the position of the valve.

Heaton HEHD 100 to HEHD 1100

Heaton HEHD 1500 to HEHD 3000

At Heaton Valves, we believe in delivering not only quality valves and actuators but also in optimizing them to suit the needs of our customers.

MOV Optimization

Lower Hardware Cost

Optimization allows a smaller actuator to be used which is less costly, and associated costs eg. cabling, breakers, spare parts, can be lowered.

Lower Operating Cost

A smaller actuator consumes lesser power throughout its operational life and is less costly to maintain.

Lower Risk of Damage

Correctly sized actuators lowers the risk of damage or high wear on the valve due to oversizing, resulting in a longer operational life.

Correct sizing of actuators for use on valves can reduce the cost of installation and operation throughout the life of the valve. In almost all cases, standard production valves with fixed torques are used for such requirements. This will always result in either of the following:

Oversizing of the actuator

If the oversized actuator has an output thrust greater than the stem buckling load, the stem would bend and cause the valve to be inoperable. If the stem is strong enough to withstand the output thrust, the valve will operate but additional costs will be incurred due to the larger actuator. The associated cost includes larger power cable size, breakers, spare parts etc and most importantly, a higher operation cost due to a higher power consumption.

Undersizing of the actuator

Undersized actuators may perform normally during the first few years of operation but will start to fail when wear and tear of the moving parts become evident and increased frictional forces cannot be fully overcomed by the actuator. As a result, the actuator may not be able to open the valve or it may not be able to shutoff the pressure resulting in leakage.

Optimization

When optimization of actuator selection is carried out, it will eliminate all of the above problems and result in cost savings during the construction phase and throughout the operational life of the valve. Heaton has developed a unique optimization program that engineers the valve to suit actuators commonly used in the market. Brands of actuators and gearboxes in the optimization program includes Auma, Limitorque and Rotork. Other actuators are available upon request.

The Heaton name has been synonymous with cast steel valves since Arthur Heaton began a valve manufacturing business in Halifax, England, in 1943.

Heaton Valves presently supplies over forty countries worldwide with a range of valves for the oil & gas, petrochemical/chemical, power, mining and many other markets.

This catalogue provides the basic range of valves and actuators produced by Heaton Valves.

For more flow control solutions, please contact Heaton Valves for further details.

Heaton Valves

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